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ST3GAL2 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21060a

Product Information

Application	WB, E
Primary Accession	Q16842
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB43965
Calculated MW	40173

Additional Information

Gene ID	6483
Other Names	CMP-N-acetylneuraminate-beta-galactosamide-alpha-2, 3-sialyltransferase 2, Alpha 2, 3-ST 2, Beta-galactoside alpha-2, 3-sialyltransferase 2, Gal-NAc6S, Gal-beta-1, 3-GalNAc-alpha-2, 3-sialyltransferase, ST3Gal II, ST3GalII, ST3GalA2, Sialyltransferase 4B, SIAT4-B, ST3GAL2, SIAT4B
Target/Specificity	This ST3GAL2 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 55-89 amino acids from the N-terminal region of human ST3GAL2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ST3GAL2 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ST3GAL2 (HGNC:10863)
Synonyms	SIAT4B
Function	A beta-galactoside alpha2-3 sialyltransferase primarily involved in terminal

	sialylation of ganglio and globo series glycolipids (PubMed:8920913, PubMed:9266697). Catalyzes the transfer of sialic acid (N-acetyl-neuraminic acid; Neu5Ac) from the nucleotide sugar donor CMP-Neu5Ac onto acceptor Galbeta-(1->3)-GalNAc-terminated glycoconjugates through an alpha2-3 linkage (PubMed:25916169, PubMed:8920913, PubMed:9266697). Sialylates GM1/GM1a, GA1/asialo-GM1 and GD1b gangliosides to form GD1a, GM1b and GT1b, respectively (PubMed:8920913, PubMed:9266697). Together with ST3GAL3, primarily responsible for biosynthesis of brain GD1a and GT1b that function as ligands for myelin-associated glycoprotein MAG on axons, regulating MAG expression and axonal myelin stability and regeneration (By similarity). Via GT1b regulates TLR2 signaling in spinal cord microglia in response to nerve injury (By similarity). Responsible for the sialylation of the pluripotent stem cell- and cancer stem cell- associated antigen SSEA3, forming SSEA4 (PubMed:12716912). Sialylates with low efficiency asialofetuin, presumably onto O-glycosidically linked Galbeta-(1->3)-GalNAc-O-Ser (PubMed:25916169, PubMed:9266697).
Cellular Location	Golgi apparatus, Golgi stack membrane; Single-pass type II membrane protein. Secreted. Note=Membrane-bound form distributed along the Golgi cisternae, mainly in proximal compartments (PubMed:25916169). Secreted into the body fluid. {ECO:0000250, ECO:0000269|PubMed:25916169}
Tissue Location	Highly expressed in skeletal muscle and heart and to a much lesser extent in brain, placenta, liver and pancreas Scarcely detectable in lung and kidney.

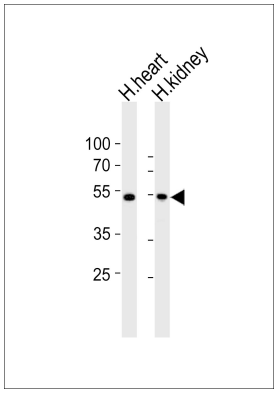
Background

It may be responsible for the synthesis of the sequence NeuAc-alpha-2,3-Gal-beta-1,3-GalNAc- found in terminal carbohydrate groups of certain glycoproteins, oligosaccharides and glycolipids. SIAT4A and SIAT4B sialylate the same acceptor substrates but exhibit different Km values.

References

Kim Y.-J.,et al.Biochem. Biophys. Res. Commun. 228:324-327(1996).
Giordanengo V.,et al.Eur. J. Biochem. 247:558-566(1997).

Images



Western blot analysis of lysates from human heart and human kidney tissue (from left to right), using ST3GAL2 Antibody (Nterm)(Cat. #AP21060a). AP21060a was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20ug per lane.